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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/663,205

09/15/2003

Steven M. Bennett

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07/11/2006

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EXAMINER

WILSON, YOLANDA L

ART UNIT

PAPER NUMBER

2113

DATE MAILED: 07/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/663,205

Applicant(s)

BENNETT ET AL.

Examiner

Yolanda L. Wilson

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2113

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 10-26 is/are rejected.
- 7) ☒ Claim(s) 8 and 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>01/04;03/05;11/04</u> . | 6) <input checked="" type="checkbox"/> Other: <u>IDS dated 05/05</u> .                  |

**DETAILED ACTION**

***Claim Objections***

1. Claims 8,9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-7,10-16,19-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Chou et al. (WO 02/052404A2). As per claims 1,23, Chou et al. discloses receiving a request to transition control to a virtual machine (VM) from a virtual machine monitor (VMM); determining whether the VMM has requested a delivery of a fault to the VM; and if the VMM has requested the delivery of a fault to the VM, delivering the fault to the VM when transitioning control to the VM on page 12, line 20 – page 13, line 6. The fault is the interrupt.
4. As per claims 2,11,24, Chou et al. discloses wherein the request to transition control to the VM is received via an instruction executed by the VMM on page 12, line 23 – column 13, line 6.
5. As per claims 3,20,25, Chou et al. discloses wherein determining whether the VMM has requested the delivery of the fault to the VM comprises: accessing a fault

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indicator maintained by the VMM; and determining whether the fault indicator is set to a delivery value on page 17, line 19 – page 18, line 7. The fault indicator is the name of the interrupt or exception.

6. As per claims 4,21,26, Chou et al. discloses determining an identifier of the fault and a type of the fault; and determining whether the fault is associated with an error code that is to be provided to a handler associated with the fault on page 17, line 19 – page 18, line 7. The fault identifier is the name of the interrupt or exception, which indicates the type of fault. The error code is the value associated with the fault (interrupt or exception) in a particular architecture.

7. As per claim 5, Chou et al. discloses if the fault requires the delivery of the error code to the handler associated with the fault, retrieving the error code and providing the error code to the handler on page 17, line 19 – page 18, line 7.

8. As per claims 6,15, Chou et al. discloses the fault indicator, the fault identifier and the type of the fault are stored in a first field; and the error code is stored in a second field on page 17, lines 19-21. This information is stored within the redirection map.

9. As per claims 7,16, Chou et al. discloses wherein the first field and the second field are included in a virtual machine control structure (VMCS) on page 17, lines 19-21. The structure is defined by the redirection map.

10. As per claim 10, Chou et al. discloses a virtual machine monitor (VMM); a data structure controlled by the VMM, the data structure storing a fault indicator; and fault delivery logic to receive a request to transition control to a virtual machine (VM) from the

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VMM, to determine whether the VMM has requested a delivery of a fault to the VM using the fault indicator, and to deliver the fault to the VM when transitioning control to the VM if the VMM has requested the delivery of the fault to the VM on page 12, line 20 – page 13, line 6. The fault is the interrupt. The data structure is defined by the redirection map which holds the fault indicator which is the name of the fault (interrupt or exception).

11. As per claim 12, Chou et al. discloses wherein the fault delivery logic is to determine whether the VMM has requested the delivery of the fault to the VM by accessing the fault indicator maintained by the VMM, and determining whether the fault indicator is set to a delivery value on page 17, line 19 – page 18, line 7. The fault indicator is the name of the interrupt or exception.

12. As per claim 13, Chou et al. discloses wherein the fault delivery logic is further to determine an identifier of the fault and a type of the fault, and to determine whether the fault is associated with an error code that is to be provided to a handler associated with the fault on page 17, line 19 – page 18, line 7. The fault identifier is the name of the interrupt or exception, which indicates the type of fault. The error code is the value associated with the fault (interrupt or exception) in a particular architecture.

13. As per claim 14, Chou et al. discloses wherein the fault delivery logic is further to retrieve the error code and provide the error code to the handler if the fault requires the delivery of the error code to the handler associated with the fault on page 17, line 19 – page 18, line 7.

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14. As per claim 19, Chou et al. discloses a memory to store guest software; and a processor, coupled to the memory, to receive a request to transition control to the guest software from a virtual machine monitor (VMM), to determine that the VMM has requested a delivery of a fault to the guest software, and to deliver the fault to the guest software when transitioning control to the guest software on page 12, line 20 – page 13, line 6 and on page 19, line 15 – page 20, line 2. The fault is the interrupt.

15. As per claim 22, Chou et al. discloses wherein the processor is further to retrieve the error code and provide the error code to the handler if the fault requires the delivery of the error code to the handler associated with the fault on page 17, line 19 – page 18, line 7.

***Claim Rejections - 35 USC § 101***

16. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

17. Claims 23-26 are not limited to statutory embodiments. In view of Applicant's disclosure, on page 4, claim 18, the machine-readable medium is not limited to statutory embodiments, instead being defined as including both statutory embodiments (e.g., ram) and non-statutory embodiments (e.g., carrier waves). As such, the claim is not limited to statutory subject matter and is therefore non-statutory.

18. Claims 10-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 10 recites 'a virtual machine monitor...'.

These claims merely recite software per se, which is not permissible under the Examination Guidelines for Computers - Related Inventions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yolanda L. Wilson whose telephone number is (571) 272-3653. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Yolanda L Wilson  
Examiner  
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